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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/679,406 | 10/07/2003 | Kiyoshige Muraoka | 1403-0256P | 5490 |
| 2292 | 7590 | 05/02/2006 | EXAMINER | |
| BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | KNABLE, GEOFFREY L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1733 | |

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/679,406 | MURAOKA ET AL. | |
| | Examiner | Art Unit | |
| | Geoffrey L. Knable | 1733 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 February 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

1. As to the request for an initialed PTO-1449 form, as detailed in footnote 1 in the last office action, no such form or other listing is of record.
2. Claims 2-4, 8, 10, 11, 14, 15 and 18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, line 4 renders the claim indefinite and confusing in that it refers to the resin and gas barrier layer as separate elements whereas earlier in the claim, it is defined that the gas barrier layer is formed from the resin.

As noted in the last office action, in claim 8, line 3, the use of "wherein" (at the end of the line), when read in light of the following lines, is grammatically awkward and confusing. It is suggested that this second "wherein" be changed to "comprising" to avoid this ambiguity.

In claim 18, line 1, the antecedent for "said inorganic layered compound" is indefinite as two such compounds are defined in the preceding claims, namely one in the resin (claim 1) and one in the inner liner (claim 17). It will be assumed that this claim is in reference to the layered compound in the resin in view of the close analog of this claim to original claim 9 but clarification is required.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaido et al. (US 6,136,123) taken in view of at least one of [Kotani et al. (US 5,700,560) or Kotani et al. (US 6,316,093)].

These references are applied for the same reasons as set forth in the last office action. As to the newly defined lists of resins, as already noted, Kaido et al. discloses polyvinyl alcohol (as well as EVOH).

5. Claims 5, 6, 9, 10/5 and 11/10/5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaido et al. (US 6,136,123) taken in view of at least one of [Kotani et al. (US 5,700,560) or Kotani et al. (US 6,316,093)] as applied to claims 1-4 above, and further in view of WO 98/56598 to Feeney et al. as applied in the last office action.

6. Claims 7, 8, 10/8, 11/10/8, 12-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaido et al. (US 6,136,123) taken in view of at least one of [Kotani et al. (US 5,700,560) or Kotani et al. (US 6,316,093)] and WO 98/56598 to Feeney et al. as applied above, and further in view of Kresge et al. (US 5,576,372) and Hopkins et al. (US 2001/0009948).

These references are applied for the same reasons as set forth in the last office action. As to new claims 17 and 18, the references are applied for the same reasons of record with respect to claims 5, 7 and 9 (claim 17 being essentially equivalent to previous claims 5+7 while claim 18 is essentially equivalent to previous claim 9).

7. Applicant's arguments filed 2-6-2006 have been fully considered but they are not persuasive (as regards the remaining rejections).

The prior art rejections based upon WO '598 as a primary reference have however been withdrawn in view of the amendments to the claims.

As to Kaido et al., it is pointed out by applicant that this reference does not disclose or suggest use of a layered compound as claimed. While it is not disputed that

Kaido et al. does not suggest a layered filler in the resin film, such was considered to have been obvious to the ordinary artisan in view of the secondary references to Kotani et al. With respect to the Kotani et al. references, it is argued that they relate to gas barrier resin compositions used for the preservation of foods and that the applications mentioned are far removed from tires and therefore cannot be combined with the tire references. These arguments have been considered but are unpersuasive. In particular, the Kotani et al. patents are fundamentally directed to improving the gas barrier properties in gas barrier resin compositions (and in fact these patents are also not limited to food applications). As such, it is submitted that the ordinary artisan, following the teachings of Kaido et al. to provide a barrier resin film layer in a tire so as to provide gas barrier properties to the tire, would have been strongly motivated to apply teachings with respect to known ways to enhance the gas barrier properties in films made of the same resin composition. Thus, again, given that Kaido et al. desires a resin that provides high gas barrier properties, it would have been obvious to adopt a resin that includes the layered filler as claimed for the Kaido et al. tire in light of the teachings of the Kotani et al. patents that such provides an improvement in gas barrier properties, which properties are clearly desired in Kaido et al. Only the expected results would therefore be achieved.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
May 1, 2006